UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,417	10/30/2003	Joseph G. Laura	IDF 2563 (4000-16000)	7214

			EXAMINER
28003　　7590　　02/07/2007			SEYE, ABDOU K
SPRINT			
6391 SPRINT PARKWAY		ART UNIT	PAPER NUMBER
KSOPHT0101-Z2100		2194	
OVERLAND PARK, KS 66251-2100			

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/697,417	LAURA, JOSEPH G.
	Examiner	**Art Unit**	
	Abdou Karim Seye	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 October 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-54</u> is/are pending in the application.

　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-32 and 47-53</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) <u>33-46 and 54</u> are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>30 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　a)☐ All   b)☐ Some * c)☐ None of:

　　1.☐ Certified copies of the priority documents have been received.

　　2.☐ Certified copies of the priority documents have been received in Application No. _____.

　　3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

　* See the attached detailed Office action for a list of the certified copies not received.

WILLIAM THOMSON
SUPERVISORY PATENT EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
　Paper No(s)/Mail Date <u>02/09/2004, 05/31/2005</u>.

4) ☐ Interview Summary (PTO-413)
　Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

U.S. Patent and Trademark Office
PTOL-326 (Rev. 08-06)　　　　　Office Action Summary　　　　　Part of Paper No./Mail Date 20070131

DETAILED ACTION

1.This is the initial office action based on the application filed on October 30, 2003.

Claims 1-54 are currently pending and have been considered below.

Election/Restrictions

2.This Office Action is in response to application filed on October 30, 2003, and the

telephone conversation with Applicant's representative <u>Micheal Piper</u> on January 29,

2007. Claims 1-32 and 47-53 are elected for examination.

Applicant is required to cancel non-elected claims 33-46 and 54 in the next

response to this office action.

3. Restriction to one of the following inventions is required under 35 U.S.C.121:

I.   Claims 1-32 and 47-53, drawn to a system and method for

coordinating and handling event signal , classified in class 719 and

subclass 318.

II.   Claims 33-36, drawn to a method for controlling access to resource;

locked and unlocked semaphore, classified in class 718 and

subclass 104.

III.   Claims 37-46 and 54, drawn to a system and method for managing

and addressing memory space, classified in class 711 and

subclass 1.

Inventions I and II are unrelated. Inventions are unrelated if it can be shown that

they are not disclosed as capable of use together and they have different designs,

modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case,

Group I requires coordinating and handling event signal associated with a child process,

while the invention of Group II requires controlling access to resource; locked and

unlocked state mechanism for accessing shared resource. Therefore, the inventions of

Groups I and II are patentably distinct.

Inventions I and III are unrelated. Inventions are unrelated if it can be shown that

they are not disclosed as capable of use together and they have different designs,

modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case,

Group I requires coordinating and handling event signal associated with a child process,

while the invention of Group III requires managing and addressing memory space.

Therefore, the inventions of Groups I and III are patentably distinct.

Inventions II and III are unrelated. Inventions are unrelated if it can be shown

that they are not disclosed as capable of use together and they have different designs,

modes of operation, and effects (MPEP § 802.01 and § 806.06). In the instant case,

Group II requires controlling access to resource; locked and unlocked state mechanism

for accessing shared resource, while the invention of Group III requires managing and

addressing memory space. Therefore, the inventions of Groups II and III are patentably

distinct.

Because these inventions are independent or distinct for the reasons given

above and have acquired a separate status in the art because of their recognized

divergent subject matter and are separately classified, restriction for examination

purposes as indicated is proper.

During a telephone conversation with Micheal Piper, attorney for the applicant on

January 29, 2007, a provisional election was made without traverse to prosecute the

invention of Group I, claims 1-32 and 47-53. Affirmation of this election must be made

by applicant in replying to this Office action. Claims 33-46 and 54 withdrawn from

further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-

elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention,

the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of

the currently named inventors is no longer an inventor of at least one claim remaining in

the application. Any amendment of inventorship must be accompanied by a petition

under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections -- 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming
> the subject matter that the applicant regards as his invention.

Claims 1-32 and 47-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Appropriate clarification is required on the following claims:

Claims 1-3, 5-9, 13-16,19-26,29,31 and 47-48 contain the trademark/trade name COBOL. Where a trademark or trade name is used in a claim as a limitation to identify or describe a particular material or product, the claim does not comply with the requirements of 35 U.S.C. 112, second paragraph *(see Ex parte Simpson*, 218 USPQ 1020; Bd. App. 1982). The claim scope is uncertain since the trademark or trade name cannot be used properly to identify any particular material or product. A trademark or trade name is used to identify a source of goods, and not the goods themselves. Thus, a trademark or trade name does not identify or describe the goods associated with the trademark or trade name. In the present case, the trademark/trade name is used to identify/describe a family of products generated in the proprietary programming language called COBOL and, accordingly, the identification/description is indefinite.

Dependent claims 4,10-12,17-18,27-28,30, 32 and 49-53 are also affected by these claims rejection.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefore, subject to the conditions and requirements of this title.

6. Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The current focus of the Patent Office in regard to statutory inventions under 35 U.S.C. § 101 for system claims and claims that recite a judicial exception (software) is that the claimed invention recite a practical application. Practical application can be provided by a physical transformation or a useful, concrete and tangible result. No physical transformation is recited and additionally, the final result of the claim is maintaining a state sharable between first and second COBOL programs which is not a tangible result. Therefore, *dependent claims 21-32 are also affected by the same rejection.*

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103 (a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-32 and 47-53 are rejected under 35 U.S.C. 103 (a) as being unpatentable over **Bachman** et al. **(US 4320451)** in view of Bratt et al **(US 4525780).**

Claim 1, Bachman discloses a method for enabling events in a COBOL program, the

method comprising:

maintaining, in a COBOL program, a index including a process identifier and an

event associated with a child process (fig. 1a and d; col. 37, lines 60--64 process name

and event associated to the process);

placing the child process in a wait state (col. 37, lines 48-50);

signaling, by the COBOL program, the child process to run using the

process identifier and the event associated with the child process (fig. 1a; col. 37,

lines 37-67).

But he merely discloses that the event is enable by a COBOL program.

However, in the same field of endeavor Bratt discloses a system and method for

processing data that include a high level user program language such as COBOL and

procedures triggering processes with unique identifier (fig. 6, 7 and 8; col. 21, line 15-

36). It would be obvious to one having ordinary skill in the art at the time the invention

was made to modify Bachman's invention with Bratt's invention in order to manage

more efficiently events associated with procedures and processes written in high level

programming language such as COBOL or FORTRAN. One would have been

motivated to define process identifier in a CICS COBOL environment in order to

prevent unauthorized access by users for executing a user's procedure. Therefore to

provide security for process to process communication.

Claim 2, <u>Bachman</u> teaches,

wherein the COBOL program signals a technical layer (semaphore) using the process

identifier and event associated with the child process and further wherein the technical

layer signals the child process to run (fig. 1a, evo; col. 37, lines 25-36; semaphore

used to signal occurrence).

Claim 3, <u>Bachman</u> teaches,

wherein the index maintained by the COBOL program maintains a plurality of identifiers

and a plurality of events associated with a plurality of child processes (col. 9, lines 60-

67; col. 56, lines 46-67 and col. 57, lines 1-6; multiple events and processes).

Claim 4, <u>Bachman</u> teaches,

wherein the child process is placed in the wait state by a technical layer (semaphore) (

col. 9, lines 31-59; wait state field within the semaphore).

Claim 5, <u>Bachman</u> teaches,

wherein the technical layer is further defined as a COBOL technical layer (semaphore)

in communication with the COBOL program (co. 13, table 3a and col. 110; procedure

and COBOL program).

As per claims 6-7, they are rejected for the same reasons as claim 5 above.

As per claims 8-9, they are rejected for the same reasons as claim 1 above.

Claim 10, <u>Bachman</u> teaches,

wherein the technical layer includes a coordination module operable (col. 37, lines 25-

36; synchronization process).

Claim 11, <u>Bachman</u> teaches,

wherein the child process registers the process identifier of the child process with a

technical layer (fid. 3; col. 19, lines 55-60; registers).

As per claim 12, it is rejected for the same reasons as claim 11 above.

As per claims 13 and 14, they are rejected for the same reasons as the claims above.

Claim 15, <u>Bachman</u> further teaches resource management wherein,

creating a system resource by the COBOL program; designating the system resource

to a process identification of the COBOL program; giving the system resource from the

COBOL program to the child process using the process identifier of the child process;

and taking the system resource by the child process from the COBOL program (fig. 1b,

col. 16, lines 14-35; col. 11, lines 20-42; col. 12, lines 25-52; col.13, lines 25-60; col.

14, lines 50-55; col. 15, lines 10-21 .

As per claim 16, it is rejected for the same reasons as claim 10 above.

Claim 17, <u>Bachman</u> teaches,

wherein the system resource is defined as a socket connection (fig. 2a/105 and 103).

These claimed elements of <u>Bachman's</u> reference meet the claimed limitation of the

claim.

Claim 18, <u>Bachman</u> teaches,

wherein the system resource is defined as a pipe connection (col. 37, lines 57 ; col.

37 lines 36-56 ;message passed from process to process). Theses claimed elements

of <u>Bachman's</u> reference meet the claimed limitation of the claim.

Claim 19, <u>Bachman</u> further teaches,

placing the COBOL program in a wait state after giving the system resource to the child

process; and maintaining the COBOL program in the wait state until the child process

takes the system resource (col. 82, lines 40-67, col. 84, lines 31-67).

Claims 20, and 26-28, <u>Bachman</u> teaches a system for coordinating/synchronizing

processing of event comprising: a first program having a first routine for processing; a

second program having a second routine for processing; and a module callable by the

first and second programs, the module maintaining a state sharable between the first

and second programs to coordinate the processing of the first and second routines

(col.37, lines 25-67 and col. 38, lines 1-20; coordinate the activity of two processes

working on the same task).

But he merely discloses that the event is enable by a COBOL program.

However, in the same field of endeavor Bratt discloses a system and method for

processing data that include high level user program languages such as COBOL and

procedures triggering processes with unique identifier (fig. 6, 7 and 8; col. 21, line 15-

36). It would be obvious to one having ordinary skill in the art at the time the invention

was made to modify Bachman's invention with Bratt invention in order to manage more

efficiently events associated with procedures and processes written in high level

programming language like COBOL or FORTRAN. One would have been motivated to

define process identifier in a CICS COBOL environment in order to prevent

unauthorized access by users for executing a user's procedure. Therefore to provide

security for process to process communication.

As per claims 21- 25, they are rejected for the same reasons as the claims above.

Claims 29-32, Bachman discloses state sharable between first and second programs;

same address space in a computer system (fig. 2a; col. 10, lines 1-61;sharing of

common variables and resource by multiple event processors) and separate address

space (fig. 2a; col. 32, lines 20-67; memory segmentation for addresses used by

different processes) .but he does not teach, threading. However, in the same field of

endeavor, Bratt teaches threads; objects; and access to address space for read and

write (fig. 420, 421 and 422, col. 385, line 35-67 and col. 386, lines 1-63). It would be obvious to one having ordinary skill in the art at the time the invention was made to modify <u>Bachman's</u> invention with <u>Bratt's</u> invention to include threading ,because it would increased protection for access rights to information in shared space.One would have been motivated to include threading in order to protect user programs against each other and protect the operating system against user programs.Therefore to improve performance of memory operations.

Claim 47, <u>Bachman</u> teaches a method to use signal handlers, the method comprising:

registering, a signal handler with an operating system, the signal handler associated with an event (col. 7, lines 45-67);event detection); and executing, by the operating system, the signal handler on the event occurs (col. 8, lines 1-19;event execution/occurrence).

But he merely discloses that the event is enable by a COBOL program.

However, in the same field of endeavor Bratt discloses a system and method for processing data that include high level user program languages such as COBOL and procedures triggering processes with unique identifier (fig. 6, 7 and 8; col. 21, line 15-36). It would be obvious to one having ordinary skill in the art at the time the invention was made to modify <u>Bachman's</u> invention with <u>Bratt</u> invention in order to manage more efficiently events associated with procedures and processes written in high level programming language like COBOL or FORTRAN. One would have been motivated to

define process identifier in a CICS COBOL environment in order to prevent

unauthorized access by users for executing a user's procedure. Therefore to provide

security for process to process communication.

As per claim 48, it is rejected for the same reasons as the claims 11 and 12 above.

Claim 49, Bachman teaches,

wherein the signal handler executes a corrective process (col. 4, lines 14-27; col. 9 ,

lines 30-49; exception handling).

Claim 50: Bachman further teaches,

wherein the corrective process is closing a file (col. 7, lines 16-44; mutually exclusive

assignment is required so that each process can achieve full control over the

information content of an object and during this time the file object is closed for one of

the processes).

Claim 51, Bachman teaches,

 wherein the signal handler executes a notification process (Table 5D, col. 24, lines 1-

67;evaluation of event and sending notification).

Claim 52, Bachman teaches,

 wherein the event is an input/output error (col. 4, lines 19-21).

Claim 53, Bachman, further teaches, creating a memory block; memory segmentation:

writing an identifier to the memory block related to a system processes being executed;

and reading from the memory block the identifier to determine the system process

executed when the event occurred (col. 32, lines 20-67, col. 33, lines 1-67 and col. 34,

lines 1-56).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to the

applicant's disclosure.

Gdaniec et al (4636948) discloses a method for controlling execution of application

programs written in high level program language.

Coulter et al (3891974) discloses a Data processing system having emulation

capability for providing wait state simulation function.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Exr. Abdou Seye whose telephone number is (571)

270-1062. The examiner can normally be reached Monday through Friday from 7:30

a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, contact the

examiner's supervisor, William Thomson at (571) 272-3718. The fax phone

number for formal or official faxes to Technology Center 3600 is (571) 273-8300.

Draft or informal faxes, which will not be entered in the application, may be

submitted directly to the examiner at (571) 273-6722.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group Receptionist whose telephone

number is (571) 272-3600.

AKS
February 03,2007

William Thomson
Supervisory Patent Examiner